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Asad Islam

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EXAMINER

DANG, HUNG Q

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/798,824	Applicant(s) ISLAM ET AL.	
	Examiner Hung Q. Dang	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6, 10, 11, 15-17, 19-35, 40, 41, 43, 44, 49, 50 and 53-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6, 10, 11, 15-17, 19-35, 40, 41, 43, 44, 49, 50 and 53-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 08/03/2009 have been considered but are moot in view of the new ground(s) of rejection.

Specifically, Examiner respectfully submits that the newly added limitation of “providing only one decoded video frame and changing said only one decoded video frame” necessitated a new ground of rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 16-17, 19-22, 26-32, and 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee et al. (US Patent 6,104,441 – hereinafter Wee) and Hamada et al. (US 2002/0135608 – hereinafter Hamada).

Regarding claim 3, Wee discloses a method, comprising: determining, among a plurality of input video frames in a bitstream, at least one video frame for video editing to achieve a video effect (*column 11, lines 9-32*), wherein the input video frames comprise frame characteristics, the frame characteristics comprising at least a first characteristic and a second characteristic (*column 11, lines 9-32; column 12, line 36 - column 13, line 20*), and wherein the input video frames comprise one or more preceding video frames preceding said at least one video frame (*column 11, lines 9-32; column 8, lines 10-20*);

identifying the frame characteristic of said at least one input video frame (*column 7, lines 50-53; column 11, lines 9-32*); modifying the bitstream in the compressed domain based on specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one video frame is the first characteristic (*column 12, line 36 – column 13, line 20*), and wherein if the frame characteristic of said at least one video frame is the second characteristic, decoding one of said at least one video frame for providing a decoded video frame and appending said decoded video frame to another image sequence achieve the video effect (*column 11, lines 9-32*).

However, Wee does not disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect.

Hamada discloses providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect (*[0115]-[0117]; [0142]-[0144] – wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Hamada into the method disclosed by Wee in order to allow users specify a highlight or a characteristic scene (*Hamada, [0116]*).

Regarding claim 16, Wee discloses an apparatus (*column 3, lines 36-38*), comprising: a frame analyzer module, responsive to signals indicative of a plurality of input video frames in a bitstream, adapted for determining at least one video frame for

video editing to achieve a video effect (*column 11, lines 9-32*), wherein the input video frames comprise frame characteristics, the frame characteristics comprise a first characteristic and a second characteristic (*column 11, lines 9-32; column 12, line 36 - column 13, line 20*), and wherein the input video frames comprise one or more preceding video frames preceding said at least one input video frame (*column 11, lines 9-32; column 8, lines 10-20*), said frame analyzer module further adapted for identifying the frame characteristic of said at least one video frame (*column 7, lines 50-53; column 11, lines 9-32*); and a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying the video frame data based on specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one video frame is the first characteristic (*column 12, line 36 – column 13, line 20*); and a decoding module, adapted for decoding one of said at least one video frame for providing a decoded video frame so as to append said decoded video frame to another image sequence achieve the video effect, if the frame characteristic of said at least one video frame is a second characteristic (*column 11, lines 9-3*).

However, Wee does not disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect.

Hamada discloses providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect ([0115]-[0117]; [0142]-[0144] – *wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Hamada into the apparatus disclosed by Wee in order to allow users specify a highlight or a characteristic scene (*Hamada, [0116]*).

Regarding claim 17, Hamada also discloses a spatial domain processing module for changing video frame data in the decoded video frame (*[0115]-[0117]; [0142]-[0144] – wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

Regarding claim 19, Wee also discloses a format composer module for converting the edited frame data into an edited media file (*column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Regarding claim 20, Wee also discloses the format composer module comprises a file format composer (*Fig. 9; column 16, lines 1-46*).

Regarding claim 21, Wee also discloses the format composer module comprises a media format composer (*Fig. 9; column 16, lines 1-46*).

Regarding claim 22, Wee also discloses the frame analyzer module is further adapted for identifying format information indicative of editing properties of the modified video data so as to convert the modified video data into the edited media file compatible to a media player (*column 7, lines 50-53; column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Regarding claim 26, Wee discloses an apparatus, comprising: a media encoder for encoding media data for providing encoded media data in a plurality of encoded

video frames (*column 10, lines 12-19*), wherein the encoded video frames comprise frame characteristics, the frame characteristics comprising at least a first characteristic and a second characteristic (*column 11, lines 9-32; column 12, line 36 – column 13, line 20; column 7, lines 50-53*); a media editing device, responsive to the encoded video frames, for providing edited data including one or more edited frames, the edited frames having at least one editing effect specified by one or more editing parameters (*column 11, lines 9-32*), and a media decoder, responsive to the edited data, for providing decoded media data, wherein the media editing device comprises: a video editor module, responsive to signals indicative of encoded video frames, adapted for determining at least one video frame for video editing (*column 11, lines 9-32*), and wherein the encoded video frames comprise one or more preceding video frames preceding said at least one video frame (*column 11, lines 9-32*), said video editor module further adapted for identifying the frame characteristic of said at least one video frame (*column 7, lines 50-53; column 11, lines 9-32*); a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying the encoded frame data based on specified editing parameters for providing the edited data if the frame characteristic of said at least one video frame is the first characteristic (*column 12, line 36 – column 13, line 20*); and a further module, adapted for decoding one of said at least one video frame for providing a decoded video frame if the frame characteristic of said at least one video frame is the second characteristic, so as to append to video frame for achieve the video effect (*column 11, lines 9-32*).

However, Wee does not disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect.

Hamada discloses providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect ([0115]-[0117]; [0142]-[0144] – *wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Hamada into the apparatus disclosed by Wee in order to allow users specify a highlight or a characteristic scene (*Hamada, [0116]*).

Regarding claim 27, Wee also discloses the media encoder has a connectivity mechanism and the media editing device has a further connectivity mechanism for allowing the media editing device to communicate with the media encoder in order to receive therefrom encoded media data in a wireless fashion (*Fig. 3; column 6, lines 52-58*).

Regarding claim 28, Wee also discloses the media decoder has a connectivity mechanism and the media editing device has a further connectivity mechanism for allowing the media editing device to provide the edited data to the media decoder in a wireless fashion (*Fig. 3; column 6, lines 52-58*).

Regarding claim 29, Wee also discloses the media encoder and the media editing device are integrated in an expanded encoding module (*Fig. 9; column 15, line 52 – column 16, line 7*).

Regarding claim 30, Wee also discloses the media decoder has a connectivity mechanism and the expanded encoding module has a further connectivity mechanism for allowing the expanded encoding module to provide the edited data to the media decoder in a wireless fashion (*Fig. 3; Fig. 9; column 6, lines 52-58*).

Regarding claim 31, Wee also discloses the media decoder and the media editing device are integrated in an expanded decoding module (*Fig. 3; Fig. 9; column 15, line 52 – column 16, line 7*).

Regarding claim 32, Wee also discloses the media encoder has a connectivity mechanism and the expanded decoding module has a further connectivity mechanism for allowing the media encoder to provide the edited data to the expanded decoding module in a wireless fashion (*Fig. 3; Fig. 9; column 6, lines 52-58*).

Regarding claim 53, Wee also discloses the video effect comprises a scene-transition effect (*column 11, lines 9-32*), said method further comprising: decoding at least one of said preceding video frames if the frame characteristic of said at least one video frame is the second characteristic (*column 11, lines 9-32*); and transforming the decoded video frame into an intra frame after said changing (*column 11, lines 9-32*).

Regarding claim 54, see the teachings of Wee and Hamada as discussed in claim 3 above. However, Wee and Hamada do not disclose the video effect comprises a color-change effect.

Video effects comprising color-change effect are well known in the art.

It is Official Notice taken that one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate a color-change effect on

a selected decoded video frame into the apparatus disclosed by Wee and Hamada to allow users to edit the video frame color according their color preferences.

Regarding claim 55, Wee and Hamada also disclose wherein the spatial domain processing module comprises a special effect processor (*Hamada: [0115]-[0117]; [0142]-[0144]*) and a transition effect processor (*Wee: column 11, lines 9-32*), and the video effect comprises a scene-transition effect (*Wee: column 11, lines 9-32*), wherein if the video effect is a scene-transition effect, said transition effect processor is adapted for changing the decoded video frame and the decoding module is further adapted for decoding said at least one of said preceding video frames so as to transform the decoded video frame into an intra frame after said changing for achieving the scene-transition effect (*Wee: column 11, lines 9-32; Wee et al. II, Fig. 29; column 29, line 57 – column 30, line 31*).

However, Wee and Hamada do not disclose a color-change effect and wherein if the video effect is a color-change effect, said special effect processor is adapted for changing the decoded video frame for achieving the color-change effect.

Video effects comprising color-change effect on a decoded video frame are well known in the art.

It is Official Notice taken that one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate a color-change effect on a selected decoded video frame into the apparatus disclosed by Wee and Hamada to allow users to edit the video frame color according their color preferences.

Claim 56 is rejected for the same reason as discussed in claim 55 above.

Claims 4-6, 10-11, 15, 35, 40-41, 43-44, 49-50, 57-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee and Hamada as applied to claims 3, 16-17, 19-22, 26-32, and 53-56 above, and further in view of Naimpally (US Patent 5,477,397 – hereinafter Naimpally).

Regarding claim 4, see the teachings of Wee and Hamada as discussed in claim 3 above. Further, Wee also discloses the video data are coded with MPEG format (*column 6, lines 15-24*) and are coded with variable-length code (*column 7, lines 28-37; column 17, lines 11-13*), and said method further comprising: converting the MPEG encoded video data into a decoded format prior to said modification (*column 11, lines 19-30*). However, Wee and Hamada do not disclose said method further comprising: converting the variable length code coded video data into a binary form prior to said modifying.

Naimpally discloses a MPEG decoding process that converts the VLC coded video data into a binary form (*column 5, lines 5-10*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the converting the variable length code coded video data into a binary form disclosed by Naimpally into the decoding process used in the method disclosed by Wee and Hamada to make it compatible with MPEG standard, which is an existing standard.

Regarding claim 5, Naimpally also discloses processing the variable length code coded video data in an inverse cosine transform operation (*column 5, lines 10-15*).

Regarding claim 6, Wee also discloses modifying one or more further input video frames in the bitstream in a further domain different from the compressed domain based on the frame characteristics of said at least one further video frame for providing a further modified bitstream (*column 11, lines 19-30*).

Regarding claim 10, Wee also discloses the modified bitstream comprises edited frame data (*column 16, lines 41-45*); and said method further comprising converting the edited frame data into an edited media file (*column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Regarding claim 11, Wee et al. also disclose the edited frame data is converted based on format information indicative of editing properties of the edited frame data (*column 7, lines 50-53; column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Regarding claim 15, Wee also discloses said modifying is also based on the editing parameters according to a user's chosen editing reference (*column 3, lines 51-57; column 6, lines 37-40*).

Regarding claim 35, Wee discloses an apparatus configured for editing media files in a bitstream, the bitstream comprising a video bitstream, wherein the video bitstream comprises a plurality of input video frames having video frame data (*Fig. 3; column 3, line 34 – column 4, line 3*), comprising: a video editing application module for specifying an editing effect on the input video frames (*column 3, line 49—column 4, line 3*), the input video frames comprising at least one video frame for video editing and a plurality of preceding video frames preceding said at least one video frame (*column 11, lines 9-32*), wherein the input video frames comprise frame characteristics, the frame

characteristics comprising a first characteristic and a second characteristic (*column 7, lines 50-53*); a video editing device comprising: an editor module adapted for identifying the frame characteristic of said at least one video frame (*column 7, lines 50-53*); and a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying at least part of the video frame data based on frame and specified editing effects for providing modified video data if the frame characteristic is the first characteristic (*column 12, line 36 – column 13, line 20*); and a further module, adapted for decoding one said at least one video frame for providing a decoded video frame if the frame characteristic of said at least one video frame is the second characteristic, so as to append the decoded video frame for achieving the editing effect (*column 11, lines 9-32*).

However, Wee does not disclose providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect and the bitstream to comprise an audio bitstream.

Hamada discloses providing only one decoded video frame and changing said only one decoded video frame to achieve the video effect ([0115]-[0117]; [0142]-[0144] – *wherein reducing the size of the picture to make the thumbnail corresponds to the recited changing operation*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Hamada into the method disclosed by Wee in order to allow users specify a highlight or a characteristic scene (*Hamada, [0116]*).

However, Wee and Hamada do not disclose the bitstream to comprise an audio bitstream.

Naimpally et al. disclose the bitstream to comprise an audio bitstream (*column 7, lines 21-24*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the audio bitstream disclosed by Naimpally into the bitstream disclosed by Wee and Hamada in order to add sounds to the video. The incorporated feature would make movie watching more lively.

Regarding claim 40, Wee also discloses a display screen for display video images based on modified video data (*Fig. 3; column 6, lines 40-58*).

Regarding claim 41, Wee also discloses a mobile terminal (*column 6, lines 52-58; Fig. 3*).

Claim 43 is rejected for the same reason as discussed in claim 3 above.

Claim 44 is rejected for the same reason as discussed in claim 6 above.

Claim 49 is rejected for the same reason as discussed in claim 3 above.

Claim 50 is rejected for the same reason as discussed in claim 10 above.

Claim 57 is rejected for the same reason as discussed in claim 55 above.

Claim 58 is rejected for the same reason as discussed in claim 55 above.

Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee and Hamada as applied to claims 3, 16-17, 19-22, 26-32, and 53-56 above, and further in view of Abe (US Patent 6,618,491).

Regarding claim 23, see the teachings of Wee and Hamada as discussed in claim 16 above. However, Wee and Hamada do not disclose the bitstream also comprises audio data, said device further comprising: a format parser module, for separating the audio from the video frame data in the input video frames, and an audio processing module for modifying the audio data for providing modified audio data, if so desired.

Abe discloses the bitstream comprises video and audio data (*column 3, lines 32-35*), said device further comprising: a format parser module, for separating the audio from the video frame data in the input video frames (*column 3, lines 32-35*), and an audio processing module adapted for modifying the audio data for providing modified audio data, if so desired (*column 4, lines 37-44*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the bitstream comprising both video data and audio data, the format parser module, and the audio processing module disclosed by Abe into the method disclosed by Wee and Hamada so that to make the video data having audio associated with it. Video having audio is more entertaining to watch. Besides, it is also more informative.

Regarding claim 24, Abe also discloses a combination module for combining the modified video data and the modified audio data for providing combined signals indicative of combined data (*column 4, lines 44-51, 58-64; column 5, lines 1-4, 10-18; column 7, lines 5-16*).

Regarding claim 25, Wee also discloses a format composer, responsive to the combined signals, for converting the combined data into an edited media file for use in a media player (*column 6, lines 52-58; Fig. 9; column 16, lines 1-46*).

Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee and Hamada as applied to claims 3, 16-22, 26-32, and 51-52 above, and further in view of Ikonen (US 2003/0005329).

Regarding claim 33, see the teachings of Wee and Hamada as discussed in claim 30 above. However, Wee and Hamada do not disclose each of the connectivity mechanism and the further connectivity mechanism comprises a bluetooth connectivity module.

Ikonen discloses a bluetooth connectivity mechanism (*claim 9*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the bluetooth connectivity mechanism disclosed by Ikonen into the media coding system disclosed by Wee and Hamada to have each of the connectivity mechanism and the further connectivity mechanism comprises a bluetooth connectivity module because bluetooth connections have lower power consumption.

Regarding claim 34, see the teachings of Wee and Hamada as discussed in claim 30 above. However, Wee and Hamada do not disclose each of the connectivity mechanism and the further connectivity mechanism comprises an infrared connectivity module.

Ikonen discloses an infrared connectivity module (*[0019]; [0020]*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the infrared connectivity module disclosed by Ikonen into the media coding system disclosed by Wee and Hamada to have each of the connectivity mechanism and the further connectivity mechanism comprises an infrared connectivity module to provide the system with capability of being controlled by remote controllers.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621